THE IMPACT OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) ON HEALTH WORKFORCE PERFORMANCE IN UGANDA

A case of the Integrated Human Resource Information System (HRIS) for Absenteeism Tracking in Amolatar District.

By

SCHOLASTIC ADONG

2016-M302-20004

Faculty of Agriculture

A DISSERATION SUBMITTED TO THE FACULTY OF AGRICULTURE IN PARTIAL FULFILLMENT OF REQUIREMENT FOR THE AWARD OF MASTER OF SCIENCE IN MONITORING AND EVALUATION OF UGANDA MARTYR`S UNIVERSITY

September 2018

DEDICATION

This work is dedicated to my late Uncle- Raymond Oyo Okidi, the one true Educationist that I always looked up to and the foundation stone on which my education was built. To my parents Odinya George Oyoo and Odinya Joyce Akiteng and my dear husband Mr. Okot Benson Otema.

ACKNOWLEDGEMENT

With heartfelt gratitude, I extend my appreciation to my supervisor Dr. Ssekandi Joseph the Dean Faculty of Agriculture- UMU for his immense support and guidance in the development and execution of this research. Additionally, I am grateful to Uganda Martyrs University in conjunction with African Center for Agro-Ecology and Livelihood Systems **(ACALISE)** funded by the **World Bank** for the partial scholarship I received during my studies. I extend my appreciation to all Uganda Martyr`s Lecturers for their support, my coursework groupmates for their cooperation and my classmates Sandra Chebet, Carol Josephine Achumo and Tonia Alado who supported me to keep on going and never give up.

I take this opportunity to acknowledge the overwhelming support and encouragements from my parents and in the same breath, I thank my dear husband Mr. Okot Benson Otema and my children Jacob, Jason, Angella, Mercy, Margaret, Miriam and Vicky for their endless support and for allowing me time to focus and complete my studies. Ben and the children were so understanding every time I had to cut off family time to attend classes, coursework, tests and during exams.

Lastly, I would like to thank my brothers (Martin Otim and Lawrence Okidi). Martin thank you for helping with the children over the weekends when I needed to attend to school and Lawrence, I do appreciate the inspiration, support and guidance you provided at every step of my studies.

TABLE OF CONTENTS

DECLARATION i

APPROVAL ii

DEDICATION iii

ACKNOWLEDGEMENT iv

LIST OF TABLES ix

LIST OF FIGURES x

LIST OF ACRONYMS xi

ABSTRACT xii

CHAPTER ONE 1

INTRODUCTION 1

1.1 Background 1

1.2 Problem Statement 5

1.3 Research Objectives 8

1.3.1 Main Objective 8

1.3.2 Specific Objectives 8

1.3.3 Research questions 8

1.4 Scope of the Study 8

1.4.1 Content Scope 8

1.4.2 Time Scope 8

1.4.3 Geographical Scope 9

1.5 Justification 9

CHAPTER TWO **10**

LITERATURE REVIEW **10**

2.1 Human Resource Information System (HRIS) and human resources for health (HRH) policy and planning 10

2.1.1 Health Workforce Recruitment, Deployment & Retention 12

2.2 Health Workforce Performance Management and Service Delivery 12

2.2.1 Appraisals 15

2.2.2 Absenteeism 16

2.3 Conceptual Framework 17

2.4 Operation Definitions 19

CHAPTER THREE **20**

METHODOLOGY **20**

3.1 Study Design 20

3.2 Study Population 20

3.3 Sample Size and Selection 20

3.4 Sampling Techniques and Procedures 21

3.5 Data Collection Methods 21

3.5.1 Key Informant Interviews 21

3.5.3 Questionnaires 22

3.5.4 Documents review 22

3.6 Data Collection Tools 22

3.6.1 Interview Guide 22

3.6.2 FGD Guide 22

3.6.3 Questionnaire 22

3.6.4 Documents Review Checklist 22

3.7 Reliability and Validity 23
3.8 Data Analysis 23
3.8.1 Qualitative Data Analysis 23
3.8.2 Quantitative Data Analysis 23
3.9 Ethical consideration 23
CHAPTER FOUR 24
RESULTS AND DISCUSSIONS 24
4.1 Data Presentation and Analysis 24
4.1.1. HRIS impact on Health Workforce Attendance. 26
4.1.2 The effect of attendance on health service delivery 28
4.1.3 Health Workforce Policy and Planning 31
4.2 Discussion 33
4.2.1 HRIS impact on Health Workforce Attendance 33
4.2.2 The effect of health workforce attendance on health service delivery 34
4.2.3 HRIS for Health Workforce Policy and Planning 34
CHAPTER FIVE 37
CONCLUSION AND RECOMMENDATIONS 37
5.1 CONCLUSION 37
5.1.1 HRIS impact on Health Workforce Attendance 37
5.1.2 The effect of health workforce attendance on health service delivery 37
5.1.3 HRIS for Health Workforce Policy and Planning 37
5.2 RECOMMENDATIONS 38

REFERENCE 40

Annex 1: QUESTIONNAIRE FOR ASSESSING ABSENTEEISM IN HEALTH FACILITIES 45

Annex 2: FGD FOR HEALTH WORKERS IN AMOLATAR DISTRICT 57

Annex 3: TOOL FOR ASSESSING THE ABILITY OF THE HRIS TO IMPROVE HEALTH WORKFORCE POLICY, PLANNING & ATTENDANCE PRACTICES. 59

Annex 4: DESK REVIEW TO ANALYSE TRENDS IN HEALTH INDICATOR OUTCOMES OVER THE PAST 12 MONTHS (SEP 16- SEP 17) 60

LIST OF TABLES

Table 1: Tools used to Record absenteeism of health workers 24
Table 2: Tools used to analyse absenteeism of health workers 24
Table 3: Tools used to report absenteeism of health workers 25
Table 4: Officers with whom reports of absenteeism of health workers are shared 26
Table 5: Attendance of staff at health centres during the week of the survey 26
Table 6: *Source: Primary data* 31

LIST OF FIGURES

Figure 1*: Conceptual Framework* 17
Figure 2*: Theory of Change* 18
Figure 3: Level of absenteeism from the health facility reports 25
Figure 4: Attendance of staff at health centres during the week of the survey 27
Figure 5: Immunisation trends in Amolatar district. 28
Figure 6; Maternal Health Indicators: Primary Source 29
Figure 7: Family Planning services trends 30

LIST OF ACRONYMS

CAO:	Chief Administrative Officer
DHO:	District Health Officer
DHT:	District Heath Team
FY:	Financial Year
GHWA:	Global Health Workforce Alliance
HF:	Health Facility
HMB:	Hospital Management Board
HRH:	Human Resources for Health
HUMC:	Health Unit Management Committee
ICT:	Information and Communications Technology
ILO:	International Labour Organization
PHRO:	Principal Human Resource Officer
SDGs:	Sustainable Development Goals
SPSS:	Statistical Package for Social Sciences
WHO:	World Health Organization

ABSTRACT

The overall objective of this study was to establish the effectiveness of using HRIS to optimize performance, quality and impact of the health workforce using a case study of absenteeism tracking in Amolatar district of Northern Uganda. Specifically, the study determined the role of HRIS in enhancing capacity for human resources for health policy and planning, its impact on health service delivery outcomes and attendance of health workers. a cross-sectional descriptive survey design, which included use of both qualitative and quantitative research approaches was used. Data on perceptions and practices were collected using questionnaires, Key Informant Interviews and Focused Group Discussions with the District Health Management Team, the Human Resource Office (Administrative) and Health workers.

Results showed 100% existence of tools and practices to track health workers attendance including the use of attendance registers, duty rosters, leave forms and the use of both electronic and manual systems for analysis of attendance records. Analysis of absenteeism was 47% Manual and 53% computer/electronic based. It also showed that attendance reports were generated and shared with the DHO (88.9%) and the HUMCs. However, these had not been shared with the PHRO for actions such as warning letters, reduced pay or other sanctions in place by the Ministry of Public Service.

There was consistency in health seeking behavior which was analyzed from the health indicators of Immunization, Ante-natal and Post-natal services, facility delivery, family planning usage and other infectious diseases. An average of 368 of the 6,949 Children (Based on 2017 Population estimates) had completed immunization in the 1-year period (Sept 16- Sept 17) as indicated by Measles immunization trends. This shows only 5% children in Amolatar were able to complete their immunization schedules.

The introduction and use HRIS has improved health workers attendance in all the health facilities with 57% facilities reporting very low absenteeism rates in their last reports which was mainly attributed to support staff including askaris and nursing assistants who lacked accommodation at the health facilities and a few that have absented from work due to salary issues.

Key words: *Attendance, Absenteeism, Health outcomes, impact, HRIS- Human Resource Information System.*

CHAPTER ONE

INTRODUCTION

1.1 Background

Information and communications technologies (ICTs) can play a critical role in improving health care for individuals and communities. By providing new and more efficient ways of accessing, communicating, and storing information, ICTs can help bridge the information divides that have emerged in the health sector in developing countries between health professionals and the communities they serve and between the producers of health research and the practitioners who need it. Through the development of databases and other applications, ICTs also provide the capacity to improve health system efficiencies and prevent medical errors. (Health Connect International, 2012)

The World Health Organization (WHO) Global Strategy on Human Resources for Health: Workforce 2030 sets out the policy agenda to ensure a workforce that is fit for purpose to attain the targets of the Sustainable Development Goals (SDGs). To ensure that the right health care provider is in the right place with the right skills, countries require current, accurate data on human resources for health (HRH). A strong Human Resources Information System (HRIS) enables health care leaders to quickly answer the key policy and management questions affecting health care service delivery. The World Health Organization recommends of 23 doctors, nurses, and midwives for every 10,000 people, a standard that the Uganda as a country falls far short of. Severe understaffing can engender a lack of motivation and accountability in health workers who are there, further compounding the problem (Intrahealth, 2015).

E-Health, broadly defined as the use of Information and Communication Technology (ICT) in health, can make a world of difference in all developed and developing countries. Most notable attribute of e-Health is that it is enabling the transformation of the health system from one that is narrowly focused on curing diseases in hospitals by health professionals, to a system focused on keeping citizens healthy by providing them with information to take care of their health whenever the need arises, and wherever they may be. Hospitals and hospital associations need to be aware of, prepare for, and properly manage, this transformation. It will change, forever, the

role of hospitals in the business of producing health. It will make them more efficient, improve quality and strengthen processes. But it will also remove them as the centre piece of the health-care system and give hospitals a more forward-looking and progressive role. Public health service run by Government is overburdened and collapsing. Large geographical size increase population density, lack of transport, inaccessibility, illiteracy, poverty, poor nutritional status, low budget for health, lack of funds and coordination and diversity in food habit and life style are various challenges that have triggered down trend in health services. (Bharati IMSR Journal)

Numerous healthcare delivery innovators working in low and middle-income countries are improving access to care while reducing costs and improving quality (Henk, 2010). Among these private health sector innovators, the Private Sector Task Force (PSTF) identified a unique capability: innovation to secure and optimize the health workforce. While these private sector actors developed new models for care delivery, financing, or regulating performance (Center for Health Market Innovations., 2011), they also found alternative ways to supply and optimize their health workforce. Specifically, they developed strategies to increase the supply of health workers, improve the effectiveness of existing health workers, and increase health worker retention.

The following are identified health workforce innovators that are (1) demonstrating innovative approaches to increasing the supply of health workers (e.g., the Rural Technology Business Incubator, the Amref Health Africa e-Learning Program), (2) using innovative approaches to increase the effectiveness of existing health workers (e.g., Tulane University Technical Assistance Program, MSH Technical Assistance to COMBASE), and (3) improving retention of health workers (e.g., JHPIEGO Ethiopia, Santé Sud-Mali Rural Physician Initiative).

In a few cases, these health workforce innovators are specifically organized to address the health worker shortage. They are the exception. More frequently, workforce innovators have discovered new approaches to human resource provision in response to the scarcity of health workers needed to pursue their primary organizational goal. While the PSTF found health workforce innovation in the private sector, it is but one part of a comprehensive response to the HRH crisis. The private sector responses (i.e., health workforce innovation) need greater support both

internally and from actors in the enabling environment that potentiates and constrains the innovators.

In 2006, the World Health Organization (WHO) estimated a global shortage of 4.3 million health workers. There are 57 countries with a critical shortage; 36 of these are in sub-Saharan Africa (Organisation, 2006). The insufficient supply and uneven distribution of qualified health professionals severely thwarts efforts to achieve the health-related Millennium Development Goals (MDGs) (Organisation W. H., 2008) despite the continuing technical advances.

While crucial to the performance of an organization (Buchan, 2004), human resources management is a neglected aspect in the health policies and plans of many health sectors in low-income countries. Evidence of effective HRM strategies in the health sector is currently limited, especially in the public health sector in resource-poor countries.

Results from studies among private-sector firms revealed that there is no single set of HRM practices that will lead to effective performance, and that combinations of certain key practices are required. Examples of such HR practices include offering on-the-job training and work rotation to acquire skills, and a combination of performance-based incentives (extrinsic motivation) and participation in decision-making processes (intrinsic motivation) to obtain employee motivation (MacDuffie, 1995). In order to be successful, these practices need to be aligned with the strategy of the organization (MacDuffie, 1995).

Pfeffer (1998) demonstrated that increased profits, productivity and quality in private firms across various sectors could be achieved by management approaches aimed at obtaining high commitment from personnel. This meant that managers developed strategies that:

1) Allowed personnel to have more control over (and say in) their own work;
2) enhanced skills and knowledge building and created opportunities to apply these skills and knowledge within the organization;
3) delegated more responsibility to lower-level management. He further stresses that HRM practices aimed at obtaining high commitment can be achieved only in an organizational culture that enhances trust and mutual respect (Pfeffer, 1998).

Appropriate HRM can result in high commitment levels among workers, but HRM is often implemented in a "less than optimum" way because of a lack of knowledge and skills in HRM among health care managers and the use of a traditional personnel management approach to HRM. (Dussault & Dubois, 2003),

A precondition for understanding of health labour markets and the design of effective policy solutions is the availability of reliable information on health workers' stock distribution, flows, demand, supply capacity and remuneration in both in the private and public sector (Global Health Workforce Alliance, 2015). A dramatic improvement in the availability and use of HRH data is therefore possible using technological innovations.

Data should include a comprehensive overview of the workforce characteristics (public and private practice); remuneration patterns (multiple sources, not only public sector payroll); workers' competences (including the role of different health workers, disaggregated across cadres and between different levels of care); performance (systematic data collection on productivity – full-time and quality of care); absence and absenteeism and their root causes; and labor dynamics of mobility (rural vs urban, public vs private, international migration). The overall strengthening of HRH data and measurement could in turn lay the foundations for research on cost-effectiveness and return on investment in health workforce interventions.

Modern ICT now offers new possibilities for improving most aspect within healthcare, from better access to integrated information of patients' health, and with this delivering improved healthcare in its broadest sense. According to (Ominde, 2015), pilot projects that have demonstrated improvements such as a 50% reduction in mortality or 25-50% increases in productivity within the healthcare system.

However, the use and comparability of data within and across countries and regions continues to be undermined by the diversity of definitions and the lack of norms and standards among HRH measurement tools. Furthermore, there is low capacity to use evidence-based information in HRH planning. There is broad consensus on the policy necessity and urgency of improving health workforce data and measurement, and on their application to policy and planning processes. Technological advances, connectedness and the Internet, as well as the rise of new approaches for health workforce futures, create opportunities for HRH data collection, gathering

and utilization; understanding and using the increasingly available data require boost market-based demand and supply, and align them more closely with population health needs.

Uganda is a country in health workforce crisis it falls far short of the minimum of 23 doctors, nurses, and midwives for every 10,000 people that the World Health Organization recommends. In public health facilities, only about half of approved nursing positions are filled. Severe understaffing can engender a lack of motivation and accountability in health workers who are there, further compounding the problem (Intrahealth, 2014).

Absenteeism is a global challenge in health care service delivery that has not spared any country. Locally, absenteeism is understood as being completely out of work station or arriving at the work station later than scheduled or leaving the work station early than scheduled without any permission from the prevailing authority (Diestel, 2014). In Uganda, Absenteeism is the single largest waste factor in the public health sector in the country. The poor attitude of health workers to clients affects utilization of services. Leadership and management of human resources are also weak at all levels. Overall absenteeism at the health centres in Uganda has been recognized as a major threat to the national healthcare system, just like in any other developing country with a low staff to patient ratio.

This study analysed the impact of Information Communication technology (ICT) on health workforce performance in Uganda using a case study of the Human Resource System (HRIS) for absenteeism tracking in Amolatar District; the independent variables of ICT was examined through Policy and Planning, health Workforce Management and Health Workforce quality of Services' effect on the dependant variable of health workforce performance whose indicators are reduction in maternal mortality rates, reduction in child mortality rates, improved health seeking behaviours, improved retention of health workforce and improved availability of health services.

1.2 Problem Statement

During the last decade, enormous investment has gone into the information systems to manage Human Resources, but due to the lack of a clear vision, policy, and strategy, the results of these efforts have not been very visible. Health workforce planning is important in ensuring that the recruitment, training and deployment of health workers are conducted in the most efficient way possible. However, in many developing countries, human resources for health data are limited,

inconsistent, out-dated, or unavailable. Consequently, policy-makers are unable to use reliable data to make informed decisions about the health workforce. Information Technology can however be used to collect, maintain, and analyse health workforce data.

Managers and health planners need information about the size, composition, skill sets, training needs, and performance of the public health workforce in order to make informed, well-timed decisions. The absence of this information can have negative consequences on health system functioning. In recognition of the importance of reliable data, the development and use of Human Resource information and management systems has been recommended as an attainable and cost-effective strategy to address workforce shortages and improve public health in developing countries.

In 2004, despite the existence of a variety of independent sources of health workforce data, (including censuses and other national surveys, the Ministry of Health (MOH), district level sources, independent research studies, and health professional council data), Uganda was described as in need of better information about the state of its health workforce. Although a health management information system (HMIS) had previously been implemented with somewhat limited success due to technological and organizational challenges, an information system specific to the health workforce was lacking.

At the 2008 East, Southern and Central Africa Health Community (ECSA HC) Forum on Best Practices, recommendations were made and subsequently, a resolution was passed by the ECSA Health Ministers to support the development of comprehensive human resources information systems (HRIS) at training institutions, regulatory bodies and employers, and to build capacity for HRIS use to inform policy and decision-making.

Uganda is one of several sub-Saharan African countries that experience a shortage of health workers. Consequently, hospitals and health facilities have experienced a shortage of qualified staff. The number of health workers per 1,000 population in Uganda is still far below the WHO threshold of 2.3 doctors, nurses and midwives per 1,000 population. In 2016/17 FY the ratio of doctors, nurses and midwives to the population was 1: 28,202; 1: 2,121 and 1: 6,838 respectively.

The contribution of inadequate health worker numbers and emigration have been highlighted in the international literature, but relatively little attention has been paid to absenteeism as a factor that undermines health-care delivery in low income countries.

Chronic absenteeism has many underlying causes. The most common reasons are sickness, housing, and transportation issues. But there are myriad other systems-related causes, including weak supervision, a lack of clear job expectations, delays in getting paid, and poor working conditions.

Tracking attendance is just one intervention in a comprehensive package of performance management and retention strategies that SHRH has rolled out nationally to address these systemic problems and promote greater transparency and accountability in the health sector.

Health worker absenteeism undermines staff morale and the quality of care patients receive. It wastes health sector resources, unduly burdens staff with additional workloads, and compromises communities' use of health services. A 2015 study revealed that 50% of health workers in Uganda's public sector weren't showing up or came to work but left early to collect dual pay at another facility (Intrahealth, 2014).

To address the absenteeism afflicting Uganda's already stressed and understaffed health sector, a team of IT and performance management experts on the IntraHealth International-led Strengthening Human Resources for Health (SHRH) activity piloted a package of attendance-tracking tools in 27 priority districts in January 2016. The backbone of the tracking system is the unified human resources information system iHRIS, used throughout Uganda to help ministries, health professional councils, and districts collect the data they need to make crucial decisions about health workforce funding, deployment, and development priorities. This study sought to establish the impact resulting from the use of ICT in health workers absenteeism management and its effect on Policy, planning and subsequently on health outcomes in Amolatar district.

1.3 Research Objectives

1.3.1 Main Objective

To establish the effectiveness of HRIS on optimizing performance, quality and impact of the health workforce

1.3.2 Specific Objectives

1. To establish the impact of HRIS on attendance of health workers.
2. To determine the relationship between attendance of health workers and health service delivery outcomes.
3. To determine the effect of HRIS in enhancing capacity for human resources for health (HRH) policy and planning

1.3.3 Research questions

1. How has the use of HRIS helped improve health workforce attendance at the facilities?
2. Has the use of HRH Systems supported improvement in health outcomes over the past 5 years?
3. Does the HRIS facilitate Human Resources for Health Policy and planning at District l?evel

1.4 Scope of the Study

1.4.1 Content Scope

The study focused on impact of Information Communication technology (ICT) on health workforce performance in Uganda using a case study of the Human Resource System (HRIS) for absenteeism tracking in Amolatar District; the ICTs was examined through Policy and Planning, health Workforce Management and Health Workforce quality of Services' effect on the dependant variable of health workforce performance whose indicators are reduction in maternal mortality rates, reduction in child mortality rates, improved health seeking behaviours, improved retention of health workforce and improved availability of health services.

1.4.2 Time Scope

The study covered a period of 01 year; September 2016 to September 2017 to enable the researcher follow trends on how the introduction of the HRIS influenced health service delivery.

1.4.3 Geographical Scope

Geographically this research was conducted in Amolatar District which is located in Northern Uganda. The district has 11 Government health facilities (1 Health Centre IV, 3 Health Centre IIIs and 7 Health Centre IIs), 2 Private Not-for Profit facilities (PNFPs) and an Administrative Unit at the district Headquarters. The study covered all Health facilities in Amolatar district.

1.5 Justification

The importance of HRIS, and the data that they can generate, has been highlighted by various global health initiatives. For example, the World Health Organization (WHO), in their 2006 World Health report stated that "systems for recording and updating health worker numbers often do not exist, which presents a major obstacle to developing evidence-based policies on human resource development". Six years later, despite the importance of HRIS for underpinning strong health systems, a 2012 review cited and concluded that "universal understanding of the HRIS used in monitoring human resources for health is minimal and baseline information regarding their scope and capability is practically non-existent. There is a need for more descriptive research of HRIS globally, including the documentation of impact to advance the science and evidence-based practice in this area". Some researchers have already responded to this request and made their contributions to the international peer-reviewed literature. However, because this research lies at the intersection of informatics, management, and health, most of the existing HRIS studies in health care are spread across several discipline-specific bodies of knowledge, making it difficult to obtain a complete picture of the evidence base.

Compared with the eHealth literature, there has been relatively little published research on the use and impact of information and communication technologies (ICTs) designed to support business functions within health organizations. Human resource information systems (HRISs) have the potential to improve organizational efficiency and effectiveness by facilitating workforce planning, financial and operational administration, staff training, and management analytics. However, the evidence base regarding HRIS in health care is widely distributed across disciplinary boundaries and previous reviews have been somewhat limited in scope. The Results from this study therefore was used to understand the overall picture of how an information system (ICT) can be used to effectively improve planning and management of human resources for better health outcomes.

CHAPTER TWO

LITERATURE REVIEW

2.1 Human Resource Information System (HRIS) and human resources for health (HRH) policy and planning

Information Communication Technologies (ICT) Information and Communication Technologies (ICTs) have the potential to improve the lives of people in the society ((UNDP), 2007(accessed 01 September 2015).) Increased use of ICTs enhances service delivery by: delivering economies of scale to improve access to basic services, optimizing service delivery, providing incentives for development and transfer of new technologies and products and increasing efficiency through enhanced connectivity and exchange of knowledge enabling regions to focus on delivering services where they have a comparative advantage providing access to digital development for continuous improvement.

With today's advanced information and communications technology, the distances between the inhabitants of the country, countryside as urban dwellers, is reduced and information for people in rural areas have become much more accessible (Chavula, 2013).

E-Health can contribute with information systems that can be of enormous value in providing health care. They can support health workers during their work in the clinics when there is no doctor around and helps the workers to keep track of patients and accessing their patient history. In recent years this has helped technologies for information delivery within healthcare systems to be proliferated (Chan, 2010). But without electricity, a good infrastructure and a constant flow of money it will be difficult to maintain a successful technical system. Countries such as Uganda have been through thousands of E-Health projects that have subsequently come to nothing because financiers pulled out.

The WHO (2005) article on “Issues in health information’’ adds to this definition by stating that a health management information system incorporates all the data needed by policy makers, clinicians and health service users to improve and protect population health. The goal of a Health Management Information System is to check quality by comparing perceptions of services delivered with the expected standards and to provide timely and accurate information

leading to better health care planning and improved diagnosis and more patients getting access to health services for an entire country (Tan, 2002).

The function of a health information system is to bring together data from all these different subsystems, to share and disseminate them to the many different audiences for health information and to ensure that health information is used rationally, effectively and efficiently to improve health action. A strong health information system is an essential component of sound program development and implementation, and is a requirement for strategic decision making, providing the basis upon which improved health outcomes depend.

Customizing HR information systems (HRIS) can assist HR managers with information on absenteeism. Capacity Plus's iHRIS Suite of free open source software has been used in many countries to facilitate evidence-based decision-making in health workforce planning and management. Version 4.1 of iHRIS offers capabilities for district and facility managers to track leave balances and timesheets and distinguish unexcused absences from approved leave. An integrated electronic payroll helps managers pay workers on time, which can maintain motivation and reduce absenteeism resulting from repeated efforts to obtain pay checks. In eastern Africa, mobile banking has expanded to the rural health worker payroll. Paying nurses and community workers with mobile money has shown to improve health worker retention and reduce tardiness (Doerr 2012).

Here's how the HRIS works: Every health worker in the public sector has an HRIS (or human resources information system) record. Facilities track attendance daily and submit monthly reports to the central HRIS database, which updates individual health worker records. Most health centers manually record attendance, but seven high-volume sites—mostly hospitals that employ hundreds of health workers—are using biometric scanners to log employees in and out.

Once the monthly data are in, payroll managers in each district run attendance reports and immediately see who reported to work fewer than the standard number of required days per month (usually 20). They check with facility heads to see if there are extenuating circumstances, before recommending sanctions to the district health officer and chief administrative officer, who oversee public health facilities and funds.

2.1.1 Health Workforce Recruitment, Deployment & Retention

The health sector is a labour-intensive sector and availability of adequate human resources for health is central in the achievement of the objectives. Uganda has only one doctor, nurse, or midwife for every 714 people—a critical health workforce shortage. Only 73% of public-sector positions are currently filled, and most are concentrated in the cities. Performance problems, low retention, lack of skills, poor motivation, and absenteeism abound within the health workforce (Uganda HRH Audit Report, 2017).

Shortage of critical staff especially midwives, doctors, nutritionists, anaesthetists, pharmacists, pharmacy assistants and laboratory staff has greatly compromised the delivery of quality health services. Reasons for the many vacancies include insufficient training capacity, unattractive remuneration and retention of health workers with the right skills. Migration of health workers is occurring at alarming rate due to more attractive salaries and opportunities abroad. An incentives scheme for human resource in hard-to-reach areas was initiated but sustainability remains a challenge. There are still weaknesses in leadership and management of human resources at all levels of the health system, poor and slow recruitment practices and poor distribution of health workers.

Uganda has made notable progress in the past decade: decreasing poverty, reducing child mortality by half, increasing life expectancy, and almost doubling the modern contraceptive prevalence rate.

Intrahealth is working with the government and other partners to accelerate progress by increasing the number of health workers, maximizing the performance of the existing health workforce, and strengthening health service delivery to reach people most in need with high-quality care.

2.2 Health Workforce Performance Management and Service Delivery

Since the start of the Joint Learning Initiative (JLI), in 2003, the human resources crisis in low-income countries (LICs) has received global attention, particularly the crisis in sub-Saharan Africa. In some countries less than 50% of the required staff is available to serve rural

populations, while at times care is provided by non-qualified staff (WHO, 2006; Hongoro & Normand, 2006). This situation seriously compromises the health status of the communities, particularly the poor.

Poor performance of service providers leads to inaccessibility of care and inappropriate care, which thus contribute to reduced health outcomes as people are not using services or are mistreated due to harmful practices. The final report of the Joint Learning Initiative clearly outlines the importance of the workforce in performing services by stating that health workers' number, quality and type of professionalism determine output and productivity, that they manage the other resources, that a large part of the health budget is spent on health workers and that they greatly influence progress (JLI, 2004). Several articles and documents have reported problems relating to service provision due to poor performance of health workers (including JLI, 2004; WHO, 2006; Van Lerberghe et al., 2003; Rowe et al., 2005; Garcia- Prado & Chawla, 2006).

Poor performance results from too few staff, or from staff not providing care according to standards and not being responsive to the needs of the community and patients. As Hughes et al., state: "Most performance problems can be attributed to unclear expectations, skills deficit, resource or equipment shortages or a lack of motivation" (Hughes et al., 2002). These causes are rooted in a failing health system, low salaries, difficult working and living conditions and inappropriate training.

Human resources management was recently re-defined by Armstrong (2009) as a "strategic, integrated and coherent approach to the employment, development and well-being of the people working in organizations. It covers activities such as strategic human resources management, human capital management, corporate social responsibility, knowledge management, organization development, resourcing (human resource planning, recruitment and selection, and talent management), performance management, learning and development, reward management, employee relations, employee well-being and health and safety and the provision of employee services". During the last decade, a "holistic" approach to managing people in organizations, corresponding to the above presented definition, largely replaced the traditional "personnel management" concept. HR managers are no longer responsible only for "bringing people into the organization, helping them perform their work, compensating them for their labors, and solving problems that arise" as described by Cherrington (1995) or "handling, directing and controlling

of individual employees (as well as) acquisition and retention of competent employees through proper recruitment, selection, placement, utilization, and development" (Sison, 1981). Although these tasks are still valid today, it has to be pointed out that modern approach to HR management takes into account additional perspectives, emerging from massive technology advancement as well as increasing importance of personnel performance management. Human resource managers can no longer care "only" about employees but have to tightly cooperate with executive management and more so act as direct contributors to organizations' overall performance. In order to be able to act appropriately in this new role, HR managers are highly dependent on correctly setup processes (i.e. "sets of activities, transforming a set of inputs to a set of outputs (goods or services) in order to fulfil other peoples' or processes' needs, using specific actors and tools" (Řepa, 2007)).

Determinants of poor performance can be influenced in a variety of ways, using various methods at different levels in the health system. The 2006 World health report describes three levers to influence workforce performance: job-related interventions that focus on individual occupations, support-system related interventions and interventions that create an enabling environment and focus on managerial culture and organizational arrangements (WHO, 2006). Using these levers, a further refinement can be made (at micro, macro and individual levels), to link these interventions to the determinants of poor performance. This distinction allows policy-makers, planners and managers to select appropriate interventions to address the determinants identified at each level.

Improved performance is assessed by looking at the availability of staff, as well as their competences, productivity and responsiveness. Indicators should be of a quantitative and qualitative nature. Monitoring and evaluation should also not be limited to indicators at the level of effects and outputs of interventions. It is equally important to monitor and evaluate the process of implementation and the financial and technical inputs, as both determine the success of an intervention. At all these levels, lessons can be learnt by health care policy-makers, planners and managers. Indicators and a framework for monitoring and evaluating HRD interventions are often not defined prior to interventions, and inadequate HR information systems make it extremely difficult to determine (retrospectively) the success of HR strategies. Monitoring and evaluation of HRH need more attention (WHO, 2006).

In the past, staff performance was often perceived as a function of skills and knowledge. In recent years, it has been recognized that performance is influenced by additional factors (WHO, 2006). If staff members are to perform to their full capacity, it is not only staffing issues that must be addressed, but also systems and facility issues. The performance of health workers depends not only on their competence (knowledge, skills) but also on their availability (retention and presence), their motivation and job satisfaction, as well as the availability of infrastructure, equipment and support systems, such as the management, information systems, resources and accountability systems that are in place (Zurn et al., 2005).

It is evident that poor health systems, with a lack of equipment, supplies and poor management structures, lead to poor productivity, limited competences and poor responsiveness. The root causes that result in suboptimal performance in these areas consist of a complex set of factors, which are interrelated. For instance, low salaries can lead to increased absence to earn extra income and to decreased motivation to be willing to provide quality of care. At the same time, motivation is influenced by a lack of equipment, supplies, management support and supervision.

There is an abundance of theories explaining behaviour and practices of (health) workers, often based on labour-market models, on psychological theories about job satisfaction and motivation, or a combination of these.

2.2.1 Appraisals

Performance management consists of the following activities: job descriptions, supervision, performance appraisals, continuous education, rewards and career development (Martinez, 2001). Managers must be able to assess the quality and productivity of their staff; they must be able to supervise and motivate their staff, ensure appropriate tools and resources, and identify performance gaps and address these (Kolehmainen-Aitken, 2004).

However, comprehensive performance-management systems are almost non-existent in developing countries (Martinez & Martineau, 2001) and for those performance-management activities that do form part of a system, the tools are either outdated or poorly understood or managers lack the skills to implement them appropriately.

Special attention needs to be paid to training, as many managers still see this as the best solution to addressing staff performance problems. Professional development is important for staff, but

various learning approaches can be applied to learning. Examples include cost-effective methods for on-the-job training and at the workplace through supportive supervision, clinical meetings or peer support and through distance-learning schemes. Off-site training courses appear less effective, as implementation of new skills in the workplace is not guaranteed, nor are follow-up after training or an enabling environment (Potter & Brough, 2004; Shahabudin, 2003). These schemes are also expensive, as they create staff shortages in the workplace that must be dealt with, which is often difficult in places where there are high staff-shortage levels.

2.2.2 Absenteeism

Since the 2006 World Health Report, some studies have been undertaken to systematically measure absenteeism's effects; however, more needs to be done to adequately address underlying motivation and accountability issues, inform country policies, and reduce health worker absenteeism (World Health Organization 2006).

Absenteeism has high costs on many levels: individual, organizational, and economic. To compensate for absent colleagues, health workers are burdened with additional work and sometimes forced to perform tasks for which they are unqualified. As more workers are absent without consequences, those who tended to respect their work hours become increasingly demotivated and may also adopt these negative practices. This can result in a culture in which absenteeism is accepted. The financial costs of reduced productivity due to absenteeism can be high. A study in Machakos District, Kenya estimated that the absenteeism rate, averaging 25%, cost each health facility $51,000 per month (IPAR 2008). While absenteeism has adverse consequences at the facility level, its impact on a country's health system can be substantial. For example, an average absenteeism rate of 40%, such as has been observed in India, translates to a national health workforce that is effectively 40% smaller than it appears on paper (Intrahealth, Holding Workers Accountable: Governance Approaches to Reducing Absenteeism, 2012).

Attendance management is an important aspect within every Organisation that has employees. Information collected through this style of reporting can determine whether the business is on the right track, and if it is headed for future success. Employees are a primary asset and companies need to know how to keep track of their time and attendance.

Report data from employee attendance reporting systems assists with efficient management of labor resources and report accuracy. This is one of the most powerful tools for time tracking systems to collect data for attendance patterns, projects and other details for payroll and other aspects directly related to attendance.

Report data enables management to make cost-effective decisions and determine best practices for optimizing the workforce. By supporting different methods of collecting data, e.g. biometrics fingerprint scanner, time clocks, web login/out and mobile phone clocking, there is flexibility to ensuring nothing is missed for reporting details.

Employee attendance reporting systems that automate data from time tracking software eliminates duplication and errors. Instead, management receives useful data to analyze hours worked, authorize leave requests, make hiring projections and schedule shifts. Comprehensive data reporting and analysis improves labor management decisions.

2.3 Conceptual Framework

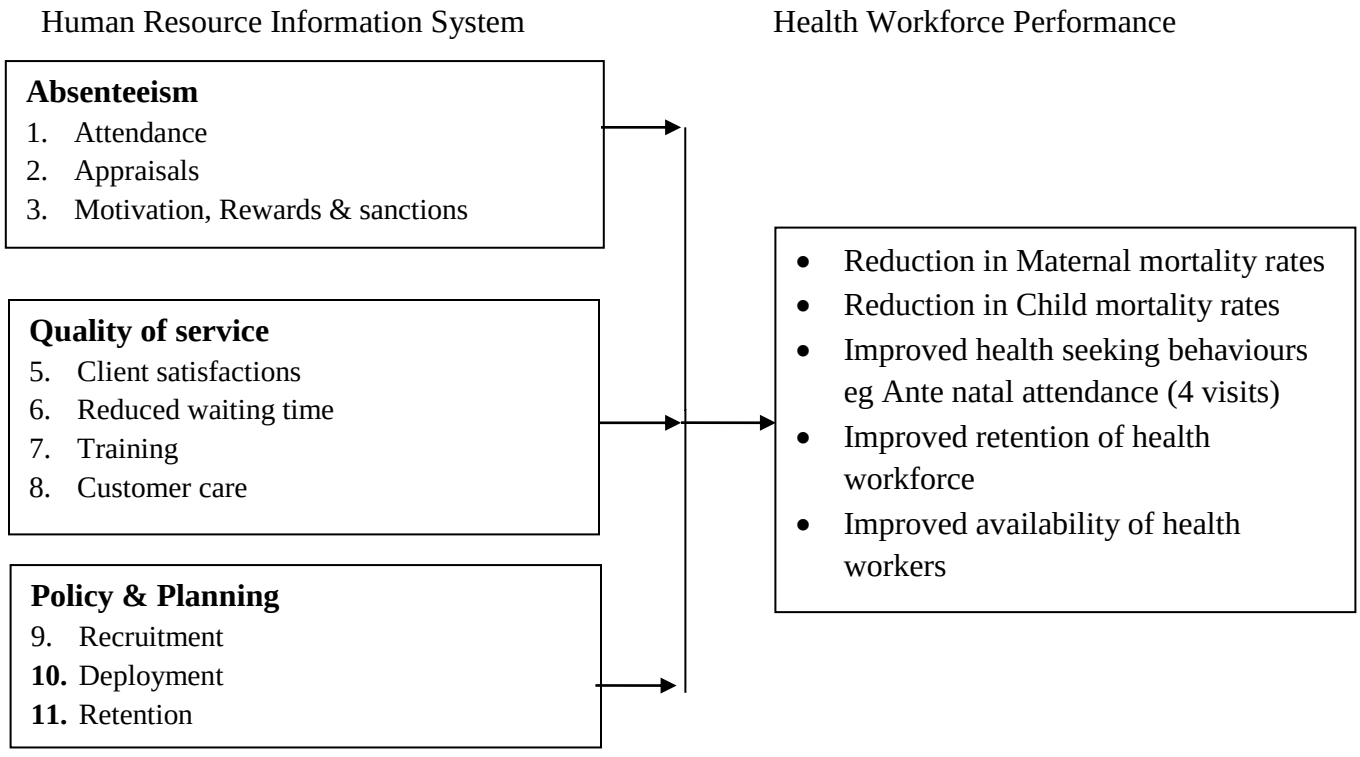


Figure 1*: Conceptual Framework*

Figure 1 above elaborates the concept on which this study was developed, in a bid to improve health outcomes, the Human Resource building block of the health system is built on three pillars that must be taken into consideration; these include health Workers availability in the right place with the right skills mix, Health Workforce quality of service and policy influences and advocacy that is evidence based. These three pillars are further subdivided into units including recruitment, deployment and retention; Appraisals, motivation, rewards and sanctions and absenteeism; Client satisfaction and reduced waiting times as measures of quality service.

Theory of Change:

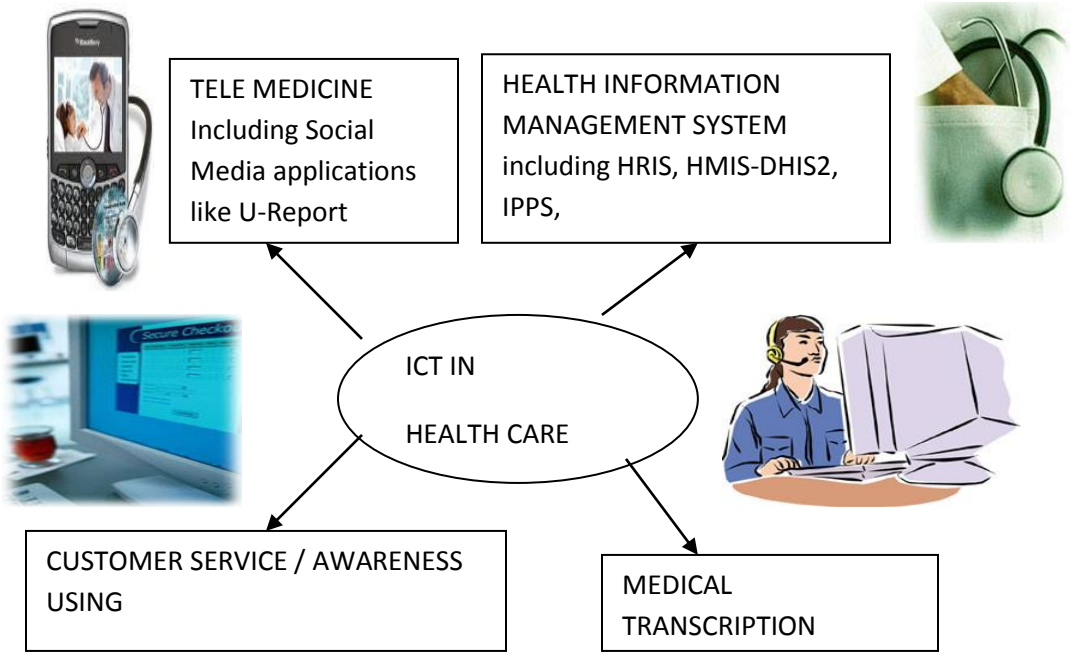


Figure 2*: Theory of Change*

Figure 2 Above denotes a Theory of Change (TOC) for the establishment and use of ICT in the health sector. ICT is all encompassing of the development and use of Health Information Systems. In Uganda for example, there are several systems including the Health Information Management System (HMIS), the Human Resource Management System (HRIS) and many others. This coupled with the use of tele-medicine platforms such as U-report supported by the Ministry of Health and tele- transcriptions that have mainly been used in the private sector are all avenues for promoting the use of ICT in health sector. This study however focused on the use of

an Information System for Human Resource management that facilitated a drive to health service delivery.

2.4 Operation Definitions

Absenteeism is defined as chronic, unexcused absence from work that adversely affects health worker productivity and undermines health service quality.

Health Workers all people engaged in the promotion, protection or improvement of the health of the population [Adams et al., 2003: 276; Diallo et al., 2003]. This is consistent with the WHO definition of health systems as comprising all activities with the primary goal of improving health. Strictly speaking, this means that family members looking after the sick and other unpaid caregivers and volunteers who contribute to the improvement of health should also be counted as part of the health workforce.

Human resources management was recently re-defined by Armstrong (2009) as a "strategic, integrated and coherent approach to the employment, development and well-being of the people working in organizations

ICT for health refers to any tool that facilitates the communication, processing or transmission of information by electronic means for improving human health (Bukachi F, 2007).

Performing service providers are defined according to the WHO definition in the World health report 2006: a well-performing workforce is a workforce that "works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given the available resources and circumstances" (WHO, 2006).

CHAPTER THREE

METHODOLOGY

3.1 Study Design

The study employed a case study design. Case studies involved in-depth contextual analysis of similar problems where nature and definition of the problem happened to be the same as experienced in the current situation. The Integrated Human Resource System (HRIS) for absenteeism in Amolatar district was used as the case study. The choice of Amolatar was purposive because the implementation of the absenteeism tracking module was started in Amolatar and later spread to another 26 pilot districts in 2016.

Also, a cross-sectional descriptive survey design, which included use of both qualitative and quantitative research approaches. Qualitative research design involved the narrating and the describing information that gives deeper insight in to a problem (Amin, 2005) as was gathered during Key Informant Interviews and Focused Group Discussions with the District Health Management Team, the Human Resource Office (Administrative) and Health workers.

Quantitative design that refers to the scientific design techniques, measures that produce discrete numerical or quantifiable data (Mugenda & Mugenda, 1999) was collected through the administration of questionnaires as well as review of health facility statistics.

3.2 Study Population

The targeted population for this study included members of the District Health Management Team (DHMT) involved in planning, policy formulation and management of health workers at district. The study population also included officials from the district Human resources office that are involved in the recruitment, deployment & performance management of the health workforce. This included the Principal Human Resource Officer (PHRO), the Human Resource Officer (HRO), the Chief Administrative Officer (CAO). Health facility in-charges and health workers were also targeted for the study- FGDs were held with health workers while in-charges interviewed as a key respondent.

3.3 Sample Size and Selection

The study targeted all the member of the DHMT (7) and CAO`s Office- Human Resource Department (3). All health facility in-charges were interviewed for 1 HC IV, 3 HC IIIs & 7 HC

IIs in Amolatar district (11 Health Facilities). FGDs were held with all Health workers that were available at the time of the visit and were willing to take part without disrupting the activities at the health centres.

3.4 Sampling Techniques and Procedures

Purposive Sampling is a sampling technique that allowed the researcher to choose cases with the required characteristics. This enables the researcher to collect information from a knowledgeable category of respondents. Purposive Sampling was used to select the district Human resources office that are involved in the recruitment, deployment & performance management of the health workforce that include the Principal Human Resource Officer (PHRO), the Human Resource Officer (HRO), the Chief Administrative Officer (CAO) and, Health facility in-charges and health workers.

3.5 Data Collection Methods

The study employed the use of four data collection methods, which included key informant interviews, Focused Group Discussions, Questionnaires and documents review.

3.5.1 Key Informant Interviews

These involved face-to-face interviews with DHMT & Human Resource Department. The study used this to generate detailed data especially through adequate probing (Merriam, 1998). In-depth interviews also guaranteed an immediate feedback. This method involved preparing questions according to the study variables beforehand and these questions were asked in the same order to each interviewee. These helped in collecting qualitative data on issues that influence the use of HRIS in health workforce planning, management and policy influencing.

Focused Group Discussions

These involved discussions with health workers from several health facilities in Amolatar district. These discussions were done with the help of well-designed guide to collect qualitative data from the health workers. 55 Health workers participated in the FGDs

3.5.3 Questionnaires

These were administered to the health facility in-charges of the various facilities that were visited by the researcher to capture both qualitative and quantitative aspects of the use of HRIS in absenteeism tracking in their facilities.

3.5.4 Documents review

Documents review involved collecting of secondary data from health facilities. The data collected from Attendance registers at the health facilities and the health indicator statistics from the facility registers and/or District Health Information System Version 2 (DHIS 2) was used to analyse attendance as well as health outcome indicator trends.

3.6 Data Collection Tools

The following research instruments were used for carrying out this study:

3.6.1 Interview Guide

This was used to gather information using face-to-face conversation with selected key-informants who were from the DHMT and HR Office. This tool allowed a degree of freedom and adaptability in getting the information from the interviewee hence yielding high response rate, clarity and new ideas may be discovered (Amin, 2005).

3.6.2 FGD Guide

These were used as a structured discussion to obtain in-depth information (qualitative data - insight) from health workers about a HRIS at health facilities. The purpose of the focus group was to collect information about people's opinions, beliefs, attitudes and perceptions about absenteeism tracking using ICT at the health facility level.

3.6.3 Questionnaire

These were administered to the health facility in-charges of the various facilities that were visited to capture both qualitative and quantitative aspects of the use of HRIS in absenteeism tracking in their facilities.

3.6.4 Documents Review Checklist

This involved review of attendance registers as well as service delivery statistics for targeted indicators.

3.7 Reliability and Validity

To ensure reliability of the research instruments, questionnaires, documents check lists and interview guides were designed and pre-tested before the study. To ensure validity of instruments, the instruments were designed under close guidance of the supervisor. After the tools were finalized, they were pre-tested. This helped to identify ambiguous questions in the instruments and re-align them according to the study variables.

3.8 Data Analysis

3.8.1 Qualitative Data Analysis

Qualitative data included both content and thematic analysis for data collected during face-to-face interviews and Focused Group Discussions. Qualitative data was analysed and interpreted by formulating explanation or description from the information acquired where information of the same category was put together to form tentative themes and sub themes. Qualitative data was interpreted by composing explanation or description from the information. The qualitative data was further illustrated and substantiated by verbatim or direct quotation of the real words as mentioned by key respondents.

3.8.2 Quantitative Data Analysis

The data was analysed using Statistical Package for Social Scientists (SPSS) version 16 and Microsoft Excel to develop cross-tables and correlation coefficients to examine and measure the relationship between the study variables.

3.9 Ethical consideration

The researcher exhaustively explained to the respondents that the study is strictly to satisfy an academic requirement and not for any other reason. Respondents were not required to provide personal details in the questionnaires and utmost confidentiality was observed. During the data collection, the researcher sought the permission from the respondents and offered them opportunity to choose whether to take part in the study or not. Those who agreed to participate in the study had questionnaires administered whereas those who decline were also respected.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Data Presentation and Analysis

Table 1: Tools used to Record absenteeism of health workers

Tools	Responses		Percent of Cases
	N	Percent	
Attendance Register	8	72.7%	100.0%
Leave Form	1	9.1%	12.5%
Electronic system	2	18.2%	25.0%

Source: Primary data

Table 1 shows that 100% of the respondents reported that attendance registers are used in recording absenteeism. However only, 25% of the respondents revealed that electronic system was used to record absenteeism of the health workers in Amolator district. And 12.5% of the respondents reported that they used leave forms to record absenteeism of the health workers.

Table 2: Tools used to analyse absenteeism of health workers

	Responses		Percent of Cases
	N	Percent	
Manual based computations	7	46.7%	77.8%
Computer/electronic based analysis	8	53.3%	88.9%

Source: Primary data

Table 2 shows that 88.9% of the respondents reported that computer/electronic based analysis used to analyse the absenteeism of health workers in the district. While 77.8% of the respondents revealed that manual based computations were used to analyse absenteeism of health workers.

Table 3: Tools used to report absenteeism of health workers

	Responses		Percent of Cases
	N	Percent	
Manual hard copy reports	7	43.8%	77.8%
Mailed soft copy reports	1	6.2%	11.1%
Online / Internet based reports	8	50.0%	88.9%

Source: Primary data

Table 3 shows that 77.8% of the respondents reported that online/internet-based reports are used to report absenteeism of health workers in Amolator district. Similarly, 77.8% of the respondents revealed that manual hard copy reports were used to report absenteeism of health workers in the district. And 11.1% of the respondents argued that mailed soft copy reports were used to report absenteeism of health workers in Amolator district.

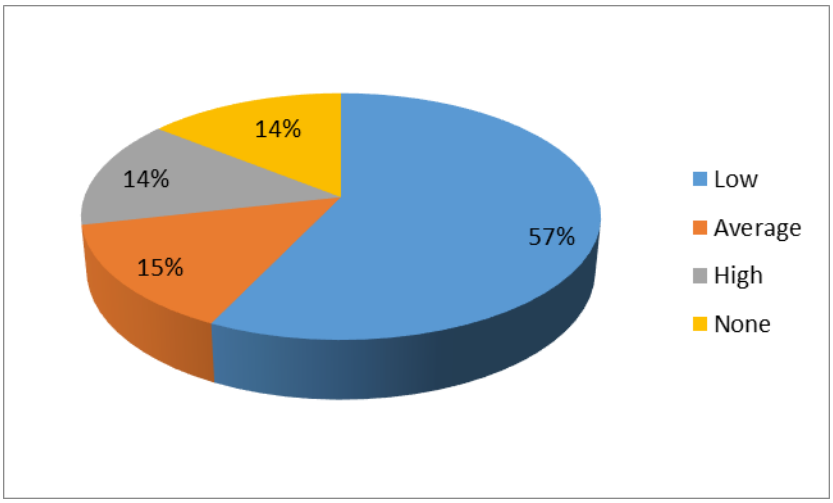


Figure 3: Level of absenteeism from the health facility reports

Figure 3 shows that 57% of the respondents revealed that there was a low level of absenteeism of health workers in the health facilities of Amolator district. It was also revealed that 15% of the respondents reported an average level of absenteeism of health workers. And 14% of the respondents revealed high and none absenteeism of health workers registered in the health facilities respectively.

Table 4: Officers with whom reports of absenteeism of health workers are shared

	Responses		Percent of Cases
	N	Percent	
DHO	8	34.8%	88.9%
Other DHT members	3	13.0%	33.3%
PHRO	1	4.3%	11.1%
HF Incharge	4	17.4%	44.4%
HUMC/HMBs	6	26.1%	66.7%
Subcounty Chief	1	4.3%	11.1%

Source: Primary data

Table 4 shows that 88.9% of the respondents revealed that reports of absenteeism of health workers were shared with District Health Officers. Similarly 66.7% of the respondents revealed that reports of absenteeism of health workers were shared with HUMC/HMBs. The findings also revealed that 44.4% of the respondents revealed that reports were shared with Health Facility In charge, 33.3% of the respondents reported that reports of absenteeism of the health workers were shared with other District Health Team members. And 11.1% of the respondents revealed that reports were shared with sub county chiefs and PHRO respectively.

4.1.1. HRIS impact on Health Workforce Attendance.

Table 5: Attendance of staff at health centres during the week of the survey

DAY OF THE WEEK	STATUS	FREQUENCY	PERCENTAGE
Monday	Present	66	73%
	Absent	25	27%
Tuesday	Present	67	74%
	Absent	23	26%
Wednesday	Present	64	71%
	Absent	26	29%
Thursday	Present	64	71%
	Absent	26	29%
Friday	Present	67	74%
	Absent	23	26%

Source: Primary data

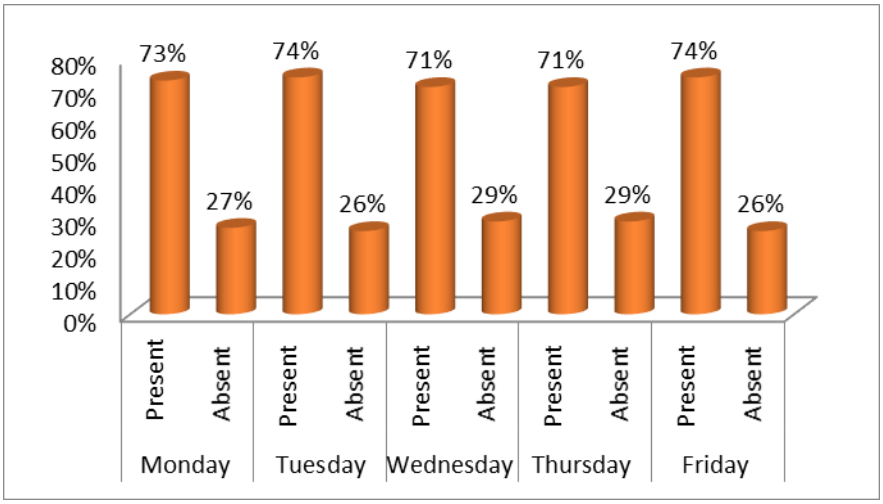
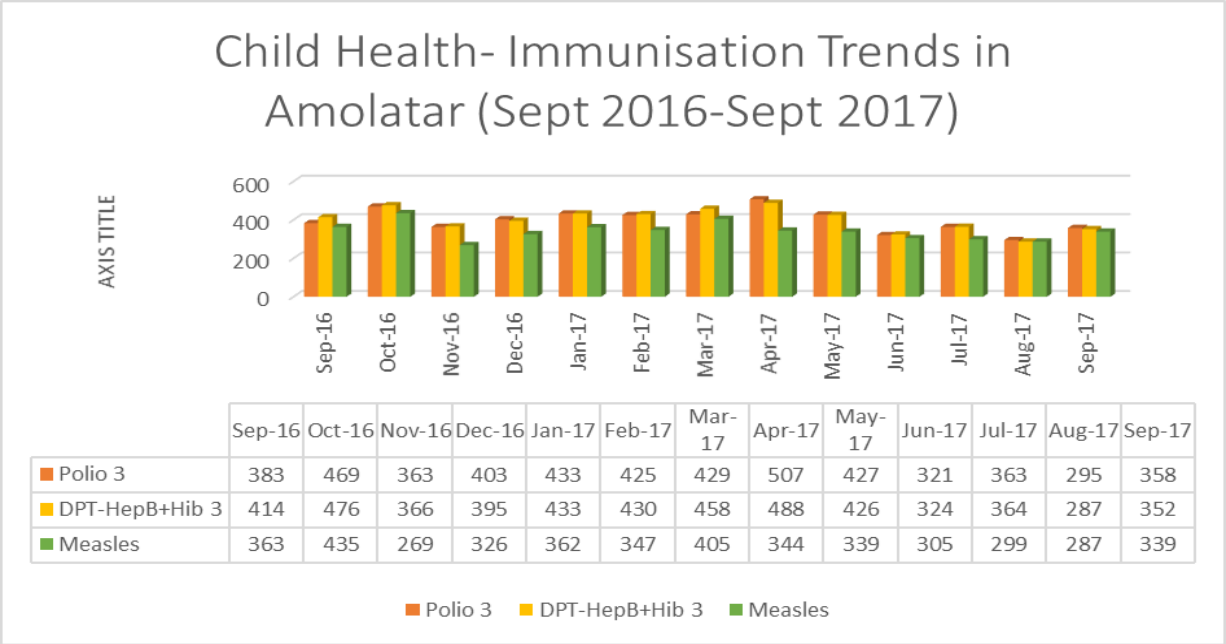


Figure 4: Attendance of staff at health centres during the week of the survey

During the week of data collection, it was revealed that 73% of the health workers were present on Monday, 74% of the health were present on Tuesday, 71% of the health workers were present on Wednesday, 71% of the health workers were present on Thursday, and 74% of the health workers were present on Friday. Most of the cases of absenteeism reported were because of Annual Leave, Night Shift, Study leave, Workshop attendance. No absenteeism was reported that the health facility in charge was not aware of.

4.1.2 The effect of attendance on health service delivery

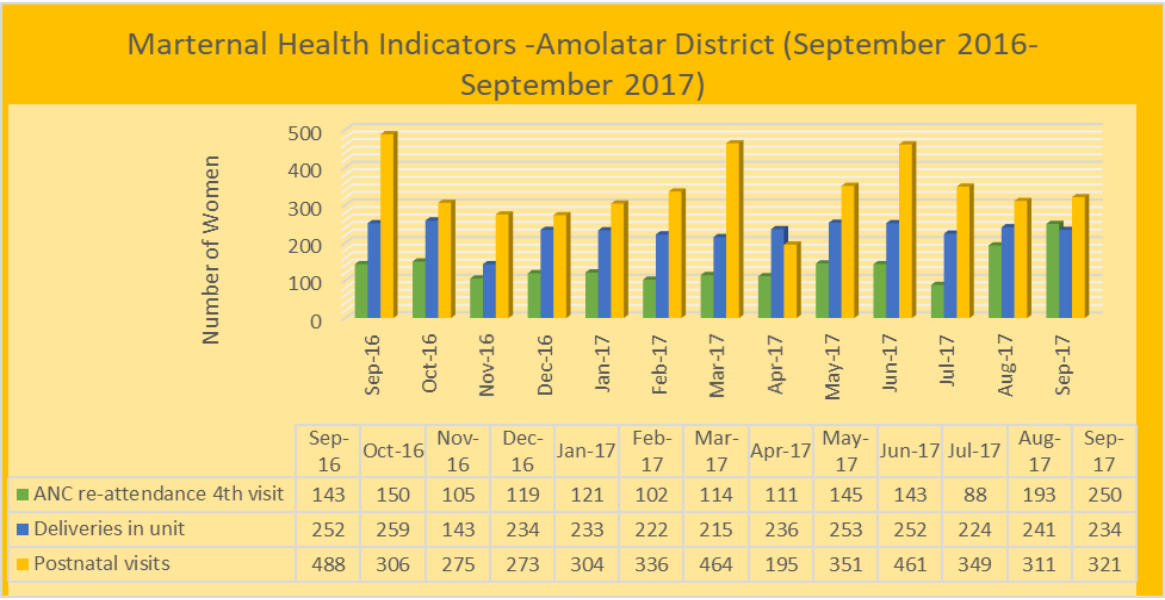


	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
Polio 3	383	469	363	403	433	425	429	507	427	321	363	295	358
DPT-HepB+Hib 3	414	476	366	395	433	430	458	488	426	324	364	287	352
Measles	363	435	269	326	362	347	405	344	339	305	299	287	339

Figure 5: Immunisation trends in Amolatar district.

Figure 5: Immunization trends in Amolatar district studied over the one-year period from the introduction of the HRIS attendance tracking shows a smooth and consistent immunization seeking behaviors among the population. In the FGD held at the health facilities, it was clear to note that majority of the staff had been attending to their duties during the study period something they very much related to the district system of tracking attendance.

Akullu Harriet a health worker said, “Personally am very happy about the attendance tracking because before this was being done, we would get overwhelmed during peak seasons for immunization- April and October because that is when we have the “Child Days Plus” but these days, all the health workers are attending their shifts at the facility”



	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
ANC re-attendance 4th visit	143	150	105	119	121	102	114	111	145	143	88	193	250
Deliveries in unit	252	259	143	234	233	222	215	236	253	252	224	241	234
Postnatal visits	488	306	275	273	304	336	464	195	351	461	349	311	321

Figure 6; Maternal Health Indicators: **Primary Source**

While ANC 4th attendance remains a challenge in Amolatar, trends show an increase in the number of mothers delivering at the health facilities. On average, approximately 250 mothers delivered at the facilities monthly.

When we asked the midwife at Namasale on the consistency in delivery trends, she reechoed the fact that mothers had become more trustful on the staff presence at the facility and therefore are more willing to deliver at the health facility. She said, “before, mothers would prefer to be attended to by the Traditional Birth Attendant because they were never sure they would find a midwife at the facility however these days, they always find us at the facility therefore we see more mothers coming to deliver at the health facility”.

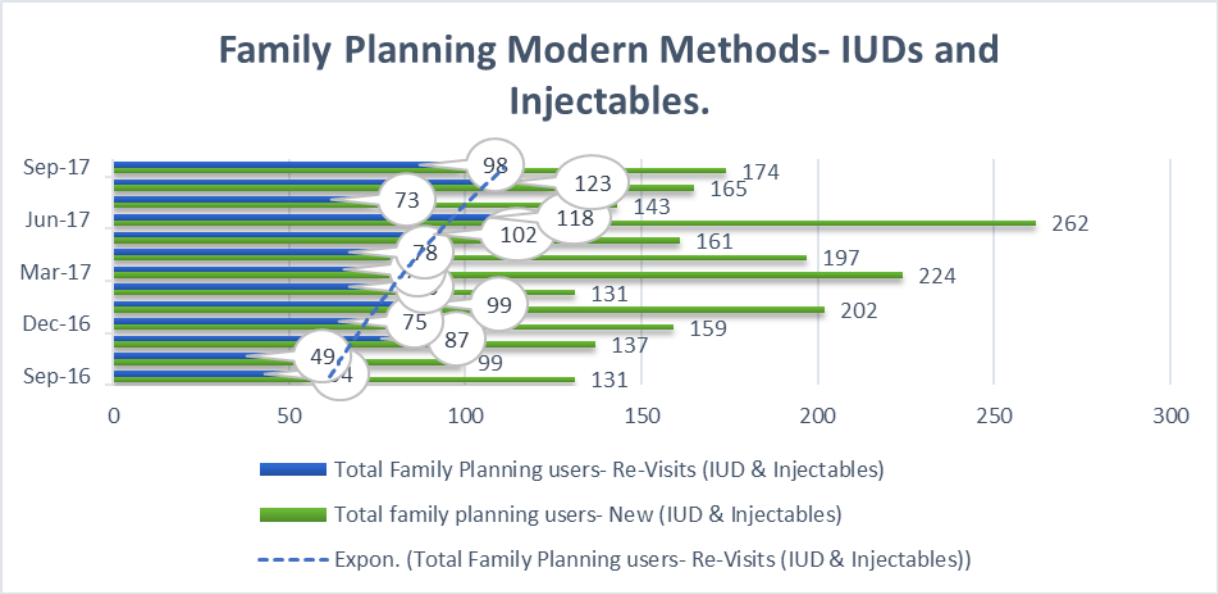


Figure 7: Family Planning services trends

The graph above shows an increase in the number of people seeking family planning services in the period under study. When we visited the health facilities, we were informed of the fact that some of these services were influenced majorly by availability of commodities however the administration was dependent on the availability of health workers at the facilities. From this therefore there was clear evidence of the effect of staff attendance on the health service delivery.

4.1.3 Health Workforce Policy and Planning

S/N	Statement	Agreement (Frequency)	Agreement (Percent)
1	The district has principal Human Resource Officer (PHRO)	10	100%
2	There are actions to improve performance of health workers in the district.	10	100%
3	There are actions to reduce the absenteeism of health workers in the district.	10	100%
4	HRH managers have up-to-date employee data system of all their health workers.	10	100%
5	In the previous FY HRH manager analysed data and generated reports.	09	90%
6	There are actions to increase recruitment of health workers in the district.	09	90%
7	The district has HR priorities for current year with targets.	09	90%
8	The HRH use planning tools in determining / projecting the human resource requirements	08	80%
9	Situation analysis of state of human resources in the district is usually conducted.	08	80%
10	There are actions to increase retention of health workers in the district.	06	60%

Table 6: *Source: Primary data*

Table 5 shows that 100% of the respondents agreed that the district has Principal Human Resource Officer. Majority of the respondents agreed with this statement implying that at the time of data collection, Amolatar district had Principal Human Resource Officer.

Table 5 shows that 100% of the respondents agreed that HRH managers have up-to-date employee data system of all their health workers. Majority of the respondents agreed that HRH

managers have up-to-date employee data system of all their health workers and this was mainly Human Resource Information System. This implies that HRH managers have up-to-date employee data system of all their health workers.

Table 5 shows that 100% of the respondents agreed that there are actions to reduce the absenteeism of health workers in the district. Majority of the respondents agreed that there are actions to reduce the absenteeism of health workers in the district such as regular monitoring of staff at work, use of daily arrival book and disciplinary actions for staff who continue to absent themselves.

Table 5 shows that 90% of the respondents agreed that during the previous FY HRH manager analysed data and generated reports. Majority of the respondents agreed that during the previous FY HRH manager analysed data and generated reports. These reports were also shared with heath workers lead team.

Table 5 shows that 90% of the respondents agreed that the district had HRH strengthening. Majority of the respondents agreed that the district had HRH strengthening using tools such as 2018/19 approved workplans for recruitment of health workers, recruitment plans with wage bill estimates, staff performance plans, PHC plans, HRIS system, recruitment guidelines for the health workers, and Human Resources manual.

Table 5 shows that 90% of the respondents agreed that there are actions to increase recruitment of health workers in the district. Majority of the respondents agreed that there were actions to increase recruitment of health workers in the district. These actions included; seeking clearance from the Ministry of Public Service, early preparations of the recruitment plan, submitting recruitment plan to CAO's office, declaring of vacant positions, approved budgets, and increased wage bill.

Table 5 shows that 90% of the respondents agreed that the district has HR priorities for current year with targets. Majority of the respondents agreed that the district has HR priorities for current year with targets. And these priorities included; recruitment, improved staff welfare by providing staff quarters with facilities, upgrading Health Centres IIs to Health Centres IIIs, construction of staff quarters, absorption of laboratory staff on to the payroll and declaration of vacant positions.

Table 5 shows that 80% of the respondents agreed that the HRH use planning tools in determining / projecting the human resource requirements. Majority of the respondents agreed that HRH use planning tools in determining / projecting the human resource requirements and these tools were mainly HRIS, district recruitment work plan, and Human Resources for Health planning tool.

Table 5 shows that 80% of the respondents agreed that situation analysis of state of human resources in the district is usually conducted. Majority of the respondents agreed that situation analysis of state of human resources in the district is usually conducted. Examples of the analyses included staff lists were analysed and updated on monthly basis, analysis on annual attrition of staff to enable recruitment on replacement basis.

Table 5 shows that 60% of the respondents agreed that there were actions to increase retention of health workers in the district. Majority of the respondents agreed that there were actions to increase retention of health workers in the district. These actions included; improved staff accommodation, regular capacity building sessions/training, prompt confirmation in service, staff leave, promotion of qualified carders.

4.2 Discussion

4.2.1 HRIS impact on Health Workforce Attendance

The study revealed a trend of attendance of staff at work during the week of data collection. It was revealed that 73% of the health workers were present on Monday, 74% of the health were present on Tuesday, 71% of the health workers were present on Wednesday, 71% of the health workers were present on Thursday, and 74% of the health workers were present on Friday.

From the study, it's clear to see that the introduction of the HRIS for absenteeism tracking has greatly improved on health workers attendance to duty with all facilities reporting low absenteeism rates in their last shared reports of which the most absent cadre being the support staff mainly attributed to the lack of accommodation at the health facilities.

4.2.2 The effect of health workforce attendance on health service delivery

Indicator trends at the various health facilities in Amolatar indicate an increase in health seeking behaviour with increments in the number of people seeking services including Immunisation, health facility delivery, family planning services as well as other non-communicable diseases. The health workers at the health facilities that were engaged in the Focussed Group Discussions attributed this to the presence of staff at the health facilities which acts as a pull factor for individuals to seek for services at the health facility.

In addition to this, health in charges praised the use of the absenteeism reporting using HRIS which allows for reports to be shred widely especially with the DHO and the HUMC. It was indicted that when these reports are shared regularly, then it becomes a basis upon which disciplinary action is taken by the DHO and the HUMC. This has therefore fostered attendance to duty at the health facility and thus improvement in service provision at the health facilities.

4.2.3 HRIS for Health Workforce Policy and Planning

The study found out that all health facilities in Amolatar are track absenteeism of health workers and are implementing various interventions to manage or reduce absenteeism of health workers including attendance registers, leave forms, duty rosters, warnings and reporting on absenteeism.and analysed through computer/electronic based analysis and manual based computations.

The study found out that online/internet-based reports, manual hard copy and mailed soft copy were used to report absenteeism of health workers in Amolatar district. The reports on absenteeism of health workers were produced on monthly and quarterly basis.

The study found out that there was a low level of absenteeism of health workers in the health facilities of Amolatar district. However, reports on absenteeism were mainly shared with DHO.

The study revealed that regular meetings with staff and duty rooster, signing of attendance books every day helped in reduction of absenteeism of the health workers. During these meetings the health workers opened up and shared their challenges and way forward towards improving their working conditions. At some point written warning letters helped in reducing the cases of absenteeism of health workers in some health facilities. Some staff with routine and continuous

cases of absenteeism received written warning letters after a series of verbal warnings and this has helped to improve on their attendance. And giving verbal warning to staff, support supervision and internal supervision by head of department respectively helped in curbing down the cases of absenteeism of health workers in health facilities. Most of the verbal warnings were done by immediate supervisors upon repeated cases of absenteeism. Whereas support supervision was mainly done by the district officials, these supervisions were usually abrupt. Health workers aimed being present everyday so that such supervisions by DHO and other district officials could not fall on a day when they are absent at their respective facilities. Supervision by head of department involved checking the attendance books at their respective departments and speaking the staff during staff meeting about dangers of absenteeism at the health facilities.

The study revealed that HRIS online attendance tracking tool was a more practical strategy that could be more effective in reducing absenteeism in health facilities. This tool requires that staff login and out of the online system on arrival and upon leaving the health facility. This could easily track the presence and absence of staff at the facility with ease. Internal and external supervisor could have access to the data. Similarly, words of encouragement were a practical strategy that could be more effective in reducing absenteeism of health worker at the health facilities. Words of encourage could bring positive energy to the team of health workers thereby promoting their attendance. And encouraging staff to identify and take up other responsibilities and supervision by going around respectively were practical strategy that could be more effective in reducing absenteeism of health workers in health facilities. Encouraging staff to identify and take up other responsibilities could bring about positive thinking, sense of responsibility and ownership. Whereas supervision by going around coupled by positive energy and words of encouragement could promote strong working relationship between supervisors and supervisees leading to reduced cases of absenteeism.

On the use of HRIS for policy and planning, Majority of the respondents agreed that there are HRH challenges faced in the district. These challenges included; staff retention, staff attrition, lack of accommodation for staff and high demand for promotion upon accomplishment of studies. Majority of the respondents at the district headquarters agreed that HRH managers have up-to-date employee data system of all their health workers. This implies that HRH managers have up-to-date employee data system of all their health workers. The study found out that

majority the respondents agreed that there are actions to reduce the absenteeism of health workers in the district. Such actions included; regular monitoring of staff at work, use of daily arrival book and disciplinary actions for staff who continue to absent themselves.

Majority of the respondents agreed that there are actions to increase recruitment of health workers in the district. These actions included; seeking clearance from the Ministry of Public Service, early preparations of the recruitment plan, submitting recruitment plan to CAO's office, declaring of vacant positions, approved budgets, and increased wage bill.

The study found out that HRH managers used HRIS in determining and for projecting the human resource requirements. The details of staff were documented in the data base. The data base was rich with necessary information to guide in forecasting the staffing needs. Similarly, HRH managers used Human Resource Planning tools such as recruitment planner for projecting the human resource requirements. The human resource planning tool and staff lists were instrumental in guiding the projections of staffing requirements.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

From the findings of this study, several conclusions can be drawn on both the strengths and the weaknesses related to the use of the HRIS system for absenteeism tracking;

5.1.1 HRIS impact on Health Workforce Attendance

Overall, the study shows that the introduction and use of the HRIS for absenteeism tracking has improved health workforce absenteeism management, tracking and reporting in Amolatar district. Much as the system is still very dependent on the attendance books/registers that come with many challenges including early registration (day before). This can further be improved using the biometric systems for registration or login.

The researcher also noted the improvement in record management and filling of human resources for health personnel records as this is a better replacement for the paper files originally used by the PHRO. However, the functions of the system that can help improve human resource planning, recruitment and retention have not been fully exploited as the system is currently mainly being used to track absenteeism.

5.1.2 The effect of health workforce attendance on health service delivery

Findings from the study show improved health outcome indicators for major services like immunisation, facility delivery and family planning usage during the period under study and this was attributed to the presence of staff at the health facility which reduced individual workload therefore less waiting time and improved client care for patients and therefore improved health seeking behaviour. The use of HRIS for attendance tracking is therefore very commendable in improving health outcome indicators.

5.1.3 HRIS for Health Workforce Policy and Planning

Amolatar district has put in place systems to track attendance of health workers at all the health facilities both Government and Private not for profit facilities. These range from attendance registers, duty rosters and leave forms particularly for those away for study leave. Health facility in charges have taken on the responsibility of reporting staff absenteeism through manual and electronic systems on a monthly and quarterly basis. Attendance data generated through the

HRIS is however being used primarily by the DHO and HUMCs as opposed to the Human Resource office. As a result, the data is not very supportive in the implementation and development of policies. Attendance data cannot be used for health workforce planning however if the entire HRIS system was being used in totality then this would aid planning and policy influencing.

5.2 RECOMMENDATIONS

Findings from this study suggest that for the system to be able to support the policy and management function, there is a need to build capacities of not only the HRIS system users but the ultimate persons that benefit from the use of the system. In Amolatar currently, the system is being managed by a records staff which ultimately undermines the use of the system by the Human resource office. Therefor the capacities of the District health staff and those of the Human resource office need to be built on the application and the use of the system while avoiding overlap in the functions of the two offices.

At the higher levels, there is need to sensitise the planning, recruitment and policy development units on how the system can be used to make decisions in a fast and reliable way if used appropriately. Therefore, while building capacities at the district levels on the use of the system, there is need to build capacities at ministry levels on the use of the system for policy and planning.

Also, the researcher noted the existence of several systems being used and therefore recommends the need to build systems that complement each other or that can operate without conflicts. Perhaps the HRIS system could have been built on the already existing IPPS- Integrated Payroll System used by the Ministry of Public Service or the District Health Information System rather than as a standalone system. The use of systems that are interoperable will be able to provide effective analysis on the service delivery indicators as compared to the use of independent systems as is the case.

Much as the system has supported an improvement in the attendance of health workers, the researcher recommends the use of HRIS as an integrated system rather than piloting a few components was very important by the researcher. Much as Amolatar is currently using the system for Absenteeism tracking, the system was designed as a comprehensive package with the

ability to establish all aspects of Human Resource Management including planning, recruitment, retention, performance and appraisal management, absenteeism tracking, personnel records management etc. Perhaps certain indicators would be better understood if all these components were being used as none of them is able to influence health outcomes on its own.

REFERENCE

1) Bukachi F, P.-W. (2007). Information Technology for Health in Developing Countries. In *Information Technology for Health in Developing Countries.* (pp. 132: 1624 - 1630).

2) Center for Health Market Innovations. (2011). *http://healthmarketinnovations.org/*.

3) Chan, C. V. (2010). *A technology selection framework for supporting delivery of patient-oriented health interventions in developing countries. Journal of Biomedical Informatics, 43(2), 300–306.*

4) Chavula, H. K. (2013). *Information Technology for Development Telecommunications development and economic growth in Africa.*

5) Commission, E. (2012). What is ehealth? ICT for Health. *E-HealthNews.eu.*

6) Diestel, S. W.-H. (2014). The Impact of Social Context on the Relationship between Individual Job Satisfaction and Absenteeism: The Roles of Different Foci of Job Satisfaction and Work-Unit Absenteeism. *Academy of Management Journal*, 57, 353 - 382.

7) Global Health Workforce Alliance, W. H. (2015). *Health Workforce 2030: Towards a Global Strategy on Human Resources for Health.* Geneva: WHO Press.

8) Henk, N. T. (2010). *Unlocking productivity through healthcare delivery innovations: Lessons from entrepreneurs around the world.*

9) Intrahealth. (2012). *Holding Workers Accountable: Governance Approaches to Reducing Absenteeism.*

10) Intrahealth(2014)Uganda-slashes-rate-health-worker-absenteeism. *https://www.intrahealth.org/news/*.

11) Intrahealth(2014)When-no-one-there-Uganda's-absent-health-workers. *https://www.intrahealth.org/features/*.

12) Intrahealth(2015)when-no-one-there-Uganda's-absent-health-workers. *https://www.intrahealth.org/features/*.

13) Intrahealth. (2017). *HRH Audit Report.*

14) Ominde, W. S. (2015). *Information and Communication Technologies and Performance of Electronic Health Projects in Kenya.*

15) Organisation, W. H. (2006). *World Health Report 2006: Working Together for Health.* . Geneva: WHO.

16) Organisation, W. H. (2008). *GHWA Task Force for Scaling Up Education and Training for Health Workers. Scaling Up, Saving Lives.* Geneva: WHO.

17) Tan, J. R. (2002). *Strategic IT applications in health care. Communications of the ACM, Volume 45 Issue 12.*

18) https://www.ictandhealth.com/news/george-crooks-having-an-electronic-health-record-is-not-enough/

19) Deepalakshmi, K, (2008) "Public healthcare service takes IT route" from web site http://www.expresshealthcare.

20) Hiramani, A.B. and Neelam Sharma. (1992), "Health Communication in India: A Policy Perspective", (pp. 262-263) in S. R. Mehta (ed.) Communication and Development: Issues and Perspectives. Jaipur: Rawat Publications http://economictimes.indiatimes.com/Healthcare/Lacking_healthcare_a_million_Indians_die_every_year_Oxford_University/articleshow/4066183.cms

21) National Health policy, (2002) Ministry of Health & Family welfare

22) Blobel B, Nerdberg R et al, (2006), Modelling privilege Management and access control, International Journal of Medical Informatics, 75:597

23) Lele R.D (2008), ICT in day-to-day Clinical Practice Postgraduate medicine API and ICP 2008 Vol. XXII.pp. 3-9.

24) Blobel B, Nerdberg R et al (2006) Modelling privilege Management and access control, International Journal of Medical Informatics, 75:597

25) Lele R.D, (2007), Computers in Medicine : Progress in Medical Informatics, McGraw Hill

26) D Detmer,(2001),Transforming Health Care in the Internet Era. World Hospitals and Health Services., 37(2).

27) Maheu, M., Whitten, P., & Allen, A. (1998). E-health, Telehealth & Telemedicine: A comprehensive guide, 12(2).

28) Eysenbach, G. & Diepgen (1998), T. Responses to unsolicited patient email requests for medical advice on the World Wide Web. The Journal of the American Medical Association., 280, 1333-1335

29) Hubbs, R. P., Rindfleisch, T. C., Godin, P., Melmon (1998), K. L. Medical information on the Internet. Journal of the American Medical Association., 280(15), 1363.

30) Mishra SK, Agarwal A, Mishra A, Singh N, Agarwal G, Verma AK, Mohapatra KC, Mohanty BN, (2003), "Distant Education in Endocrine Surgery using Telemedicine Technology" (Poster), Proceedings of Annual Conference of Asia-Pacific Association of Medical Informatics, Daegu, Korea

31) Chen L: Human resources for health: overcoming the crisis. Lancet. 2004, 364: 1984-1990. 10.1016/S0140-6736(04)17482-5.

32) Dovlo D: Wastage in the health workforce: some perspectives from African countries. Hum Resour Heal. 2005, 3: 6-10.1186/1478-4491-3-6.

33) Kombe G, Galaty D, Gadhia R, Decker C: The human and financial resource requirements for scaling up HIV/AIDS services in Ethiopia. The Partners for Health Reformplus Project. 2005, Bethesda.

34) Anand S, Bärnighausen T: Human resources and health outcomes: cross-country econometric study.

35) Lindelow M, Serneels P: The performance of health workers in Ethiopia: results from qualitative research.

36) Adano U: The health worker recruitment and deployment process in Kenya: an emergency hiring program.

37) Rakuom C: Nursing human resources in Kenya: case study. 2010, Geneva: International Centre for Human Resources in Nursing

38) Dambisya YM: A review of non-financial incentives for health worker retention in east and southern Africa.

39) Liese B, Dussault G: The state of the health workforce in sub-Saharan Africa: evidence of crisis and analysis of contributing factors. 2004, Washington, DC: World Bank

40) Yumkella F: Retention of health care workers in low-resource settings: challenges and responses. IntraHealth International. 2006

41) Hagopian A: The flight of physicians from West Africa: views of African physicians and implications for policy, 2005.

42) Alexopoulos EC: Knee and low back complaints in professional hospital nurses: occurrence, chronicity, care seeking and absenteeism. Work: A Journal of Prevention Assessment and Rehabilitation. 2011.

43) Steenstra I: Prognostic factors for duration of sick leave due to low-back pain in Dutch health care professionals. J Occup Rehabil. 2005, 15: 591-605. 10.1007/s10926-005-8037-9.

44) Genevay SP: Work-related characteristics of back and neck pain among employees of a Swiss University Hospital. Joint Bone Spine. 2011, 78: 392-397. 10.1016/j.jbspin.2010.09.022.

45) Williams ES, Rondeau KV, Xiao Q, Francescutti LH: Heavy physician workloads: impact on physician attitudes and outcomes. Health Serv Manage Res. 2007, 20: 261-269. 10.1258/095148407782219067.

46) Weir R: The efficacy and effectiveness of process consultation in improving staff morale and absenteeism. Medical Care. 1997, 35: 334-353. 10.1097/00005650-199704000-00005.

47) Chaudhury N, Hammer JS: Ghost doctors: absenteeism in rural Bangladeshi health facilities. The World Bank Economic Review. 2004, 18: 423-441. 10.1093/wber/lhh047.

48) Manzi F: Human resources for health care delivery in Tanzania: a multifaceted problem. Hum Resour Heal. 2012, 10: 3-10.1186/1478-4491-10-3.

49) Becker SG, Oliveira MLC: Study on the absenteeism of nursing professionals in a psychiatric center in Manaus, Brazil. Rev Lat Am Enfermagem. 2008.

50) UNHCO: Establishing incidence of health provider absenteeism in Bushenyi district. 2010, Kampala: Uganda National Health Users'/Consumers' Organization.

51) Tripathi M: Absenteeism among nurses in a tertiary care hospital in India. Natl Med J India. 2010

52) Schalk R: The influence of organizational commitment and health on sickness absenteeism: a longitudinal study. J Nurs Manag. 2011, 19: 596-600. 10.1111/j.1365-2834.2010.01170.x.View ArticlePubMedGoogle Scholar

53) Donovan TL, Moore KM, VanDenKerkhof EG: Employee absenteeism based on occupational health visits in an urban tertiary care Canadian hospital. Public Health Nurs. 2008, 25: 565-575. 10.1111/j.1525-1446.2008.00744.x.View ArticlePubMedGoogle Scholar

54) Junkes MB, Pessoa VF: Financial expense incurred by medical leaves of health professionals in Rondonia public hospitals, Brazil. Rev Lat Am Enfermagem. 2010, 18: 406-412. 10.1590/S0104-11692010000300016.View ArticlePubMedGoogle Scholar

55) Libet JM: Absenteeism and productivity among mental health employees. Administration and Policy in Mental Health and Mental Health Services Research. 2001, 29: 41-50. 10.1023/A:1013116931570.

56) Garcia-Prado A, Chawla M: The impact of hospital management reforms on absenteeism in Costa Rica. Health Policy Plan. 2006, 21: 91-100. 10.1093/heapol/czj015.

57) Gaudine A, Gregory C: The accuracy of nurses' estimates of their absenteeism. J Nurs Manag. 2010, 18: 599-605. 10.1111/j.1365-2834.2010.01107.

58) Muthama T, Maina T, Mwanje J, Kibua T: Absenteeism of health care providers in Machakos district. 2008, Nairobi: Kenya. Report of the Institute of Policy Analysis and Research

59) Nyathi M, Jooste K: Working conditions that contribute to absenteeism among nurses in a provincial hospital in the Limpopo Province. Curations, 2008

60) Republic of Kenya Ministry of Health: Report on challenges facing the Kenyan health workforce in the Era of HIV/AIDS. 2004, Nairobi: Republic of Kenya Ministry of Health

61) Tawfik L, Kinoti SN: The impact of HIV/AIDS on the health workforce in developing countries. World Health Report - Working Together for Health. 2006, Geneva: World Health Organization

62) Dellve L, Hadzibajramovic E, Ahlborg G: Work attendance among healthcare workers: prevalence, incentives, and long-term consequences for health and performance. Journal ofAdvanced Nursing. 2011.

Annex 1: QUESTIONNAIRE FOR ASSESSING ABSENTEEISM IN HEALTH FACILITIES

Instruction: To be administered to INCHARGES/ /HEALTHWORKERS

FACILITY IDENTIFICATION
District……..……..……Sub county……..…….…..Health facility:…….
Name of Interviewer……Date……..…Tel……

Section A. Health Facility staffing level

Total number of positions filled	
Total number of approved Positions (by MOPS)	

SECTION B

No	Question	Response	Evidence
B1	Is the health facility implementing any interventions to manage/reduce absenteeism of health workers?	Yes ☐ No ☐	
B2	If yes, which interventions are being implemented? *Verify*		
B3	Does the health facility track absenteeism of health workers?	Yes ☐ No ☐	
B4	If yes, what tools does the health facility use to record attendance of health workers?	Attendance register……1 Leave forms……..2 Biometric system……3 Electronic system……4. Time sheets……..5 Other (specify)……..6	
B5	What tools are used to record absenteeism of health workers?	Attendance register……1 Leave forms……..2	

No	Question	Response	Evidence
		Biometric system……3 Electronic system……4. Time sheets……..5 Other (specify)……..6	
B6	What tools are used to analyze absenteeism data in health facilities?	Manual based computation..…1 Computer/electronic based analysis……..2 Other (specify)……3	
B7	What tools are used to report absenteeism?	Manual hard copy reports……1 Mailed soft copy reports……2 Online/internet based reports……3 Other (specify)…….4	
B8	How often are reports produced?	Monthly…..……1 Quarterly…….…...2 Semi-annually……3 Annually……..…..4 Others (specify)……..	

No	Question	Response	Evidence
B9	When was the last absenteeism report produced?	Month…….. Year……..	
B10	What was the level of absenteeism from the last health facility report?		
B11	With whom are the absenteeism reports shared with?	CAO……....1 DHO…….2 Other DHT members…..…3 PHRO……..2 HF Incharge…….....4 HUMC/HMBs…..…5 Subcounty Chief……6 MOH……7 Others specify…….	
B12	Which cadres of health workers are most absent?		
B13	What are the major causes of absenteeism in the health facility?		
B14	What actions is the health facility implementing to reduce absenteeism?		

No	Question	Response	Evidence
B15	Which other stakeholders are involved in addressing absenteeism of health workers in the health facility? (*Please specify the stakeholders and the specific activities they support)*	Stakeholder 1. 2. 3. 4. 5.	Intervention supported
B16	In your opinion, which practical strategies are most effective in reducing absenteeism in the health facility?		

SECTION C: LIST OF ALL HEALTH WORKERS AT THE HEALTH FACILITY WHO WERE PRESENT ON DUTY OR ABSENT AT TIME OF SURVEY

When at the health facility, interview the in charge or supervisor to record information on the health workers who are present or absent, and record the required information about them.

No	Name of Staff Use initials in the column for the names. If the initials are same, assign a different number to the initials. (e.g A.M1, A.M2)	Sex 1=Male 2=Female	Cadre *USE CODES AT RIGHT*	Was this health worker found on duty? 1=Yes 2=No	Was the staff's absence formally approved? *-verify* 1=Yes 2=No	If the absence was approved: Why is staff not present today? *USE CODES AT RIGHT*	If the absence was not approved: Why is staff not present today? *USE CODES AT RIGHT*	Is the staff officially registered on the government payroll? 1=Yes 2=No 3=Don't know	Codes for 119 1=Medical doctor 2=Clinical Officer 3=Midwife 4=Nurse 5=Laboratory staff 6=Pharmacist 7=Dispenser 8= Administrative staff 9=Support staff 10= Other health workers Codes for 122A & 122 B
	Initials		Codes 119			Codes 122A	Codes 122B		
1									

2									1= Annual Leave 2=Leave Without Pay 3=Study Leave 4=Sick Leave 5=Special Leave of Absence 6=Maternity Leave 7=Paternity Leave 8=Sabbatical Leave 9=Conducting outreach 10=At HSD/DHO/MOH or at another official assignment 11=Attending training (official) 12=At workshop 13=Following up Salary
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									

									14=Picking up drugs/supplies 15=Working at another job 16=On another shift/Off duty/night duty 17=Absent without official authorization 18. Don't know 96=other (specify)
17									

SECTION D: RETROSPECTIVE ASSESSMENT OF ALL HEALTHWORKERS WHO ATTENDED DUTY OR ABSENT AT THE HEALTH FACILITY DURING THE PREVIOUS ONE WEEK.

While at the health facility, review attendance records (register, duty roster, leave forms etc) to obtain information on people who were present or absent during the previous week. If the records are not available, interview the in charge or supervisor to record required information.

No	Name of staff (only Initials)	Sex	Cadre	Monday *P=Present* *A= Absent*		Tuesday *P=Present* *A= Absent*		Wednesday *P=Present* *A= Absent*		Thursday *P=Present* *A= Absent*		Friday *P=Present* *A= Absent*		Codes for 119 1=Medical doctor 2=Clinical Officer 3=Midwife 4=Nurse 5=Laboratory staff 6=Pharmacist 7=Dispenser 8= Administrati
		1=Male 2=Female	*USE CODES FOR 119 AT RIGHT*	P/A	If A why?-*use codes 122A & 122 B*	P/A	If A why? *use codes 122A & 122 B*	P/A	If A, why? *use codes 122A&B*	P/A	If A why? *use codes 122A & 122 B*	P/A	If A, why? *use codes 122A & 122 B*	
1														
2														
3														

4														ve staff 9=Support staff 10= Other health workers Codes for 122A & 122 B 1= Annual Leave 2=Leave Without Pay 3=Study Leave 4=Sick Leave 5=Special Leave of Absence 6=Maternity
5														
6														
7														
No	Name of staff	Sex	Cadre	Monday *P=Present* *A= Absent*		Tuesday *P=Present* *A= Absent*		Wednesday *P=Present* *A= Absent*		Thursday *P=Present* *A= Absent*		Friday *P=Present* *A= Absent*		
		1=Male 2=Female	*USE CODES FOR 119 AT RIGHT*	P/A	If A why?-*use codes 122A & 122 B*	P/A	If A why? *use codes 122A & 122 B*	P/A	If A why? *use codes 122A & 122 B*	P/A	If A why? *use codes 122A & 122 B*	P/A	If A why? *use codes 122A & 122 B*	
8														
9														
10														

11														Leave 7=Paternity Leave 8=Sabbatical Leave 9=Conducting outreach 10=At HSD/DHO/ MOH or at another official assignment 11=Attending training (official) 12=At workshop 13=Following up Salary 14=Picking up drugs/suppli
12														
13														
14														
15														
16														
17														

														es 15=Working at another job 16=On another shift/Off duty/night duty 17=Absent without official authorization 18. Don't know 96=other (specify)

Annex 2: FGD FOR HEALTH WORKERS IN AMOLATAR DISTRICT

Instruction: To be administered to a group of Health Workers at each Facility

Date of Discussion:	
Health Facility:	
Name of Facilitator: Name of Note Taker:	

Section A. Health Facility staffing level

Total number of positions filled	
Total number of approved Positions (by MOPS)	

Introductions:

Questions:

How would you rate staff daily attendance at your facility?

Has this changed over the last 24 months?

How has this changed?

What could be the factors influencing this change?

Is there a system in place to monitor attendance to duty?

Kindly elaborate on the system being used to monitor attendance to duty.

Has the system been helpful?

If Yes, How? If No, why not?

Is data from the system being analysed?

If yes, by who? If No, why not?

Has any staff from this facility been rewarded for good attendance based on this system?

Has any staff from this facility been sanctioned for poor attendance based on this system?

What are your general perceptions on this system?

How do you think the said system can be improved?

Would you advocate for this system to be rolled out to other sector departments like Education?

Any other comments with regards to staff attendance?

Thank you very much!

Annex 3: TOOL FOR ASSESSING THE ABILITY OF THE HRIS TO IMPROVE HEALTH WORKFORCE POLICY, PLANNING & ATTENDANCE PRACTICES.

Instruction: To be administered to DHMT Members, Biostatistician CAO, PHRO, HRO.

Date of interview:	
Title of Interviewee:	
Health Facility:	
Name of Interviewer:	

Section A. Hospital staffing level

Total number of positions filled	
Total number of approved Positions (by MOPS)	

SECTION B: CAPACITY FOR HUMAN RESOURCE MANAGEMENT PLANNING

No	Question	Yes	No	Evidence (if yes)
B1	Does the District have a Principle Human Resource Officer (PHRO)?			
B1.2	HRO?			
B2	Does the Hospital have a copy of HRH planning guidelines?			
B3	If yes, where did the guidelines come from?	MOH……..1 Others (specify)……..2		

No	Question	Yes	No	Evidence (if yes)
B4	Does the HRH manager use any planning tools in determining/projecting their human resource requirements?			
B5	If yes, what planning tools does the HRH manager (s) use in determining/projecting their human resource requirements?			
B6	Does the District have some documented human resources for health (HRH) strengthening plan? *Verify*			
B7.1	Situation analysis of the state of human resources in the district? -*State example*			
B7.2	HRH challenges/issues faced by the district? *State example*			
B7.3	District human resource priorities for the current			

No	Question	Yes	No	Evidence (if yes)
	year, with targets to be achieved? *State example*			
B7.4	Actions to increase recruitment of health workers in the district? *State example*			
B7.5	Actions to increase retention of health workers in the district? *State example*			
B7.6	Actions to improve performance of health workers? *State example*			
B7.7	Actions to reduce absenteeism of health workers? *State example*			
B8	Does the HRH managers (s) have an up-to-date employee data system of all their health workers?			
B9	If yes what type of data system is used by PHRO & Administrator to track information on health workers?	PHRO…… Administrator……		

No	Question	Yes	No	Evidence (if yes)
B10	Please indicate the total number of health workers in PHRO database and those in Administrator data system.	PHRO……. Administrator…….		
B11	In the previous FY (2016/2017) did the HR manager (s) analyze HRH data to generate reports showing status on any of the following HRH indicators?			
B11.1	Percent of approved positions filled by health workers in the district? *Verify for consistency in figures used*			
B11.2	Distribution of staff by Department-*Verify for consistency in figures used*			

SECTION C: ABSENTEEISM

C1. Does the district face any in challenges with staff attendance to duty (generally)?

……

……

C2. Was this a challenge in the last financial year or years before 2016?

……

……

C3. Does the district have any mechanisms in place to track attendance of health workers?

……

……

C4. How has this improved attendance over the past 1 year (Sept 2016- Sept 2017)?

……

……

C5. What do you believe is the motivation behind the improved attendance?

……

……

How does the current system help deal with absenteeism that is intended like Day/Night shift, Study leave…..etc?

……

C6. How sustainable do you think this is?

……

……

C7. Would you recommend this system for other sectors other than Health?

……

……

Section E

E.1 In your opinion what verifiable health outcomes/outputs were achieved because of the use of HRIS? *Verify*

……

……

E.2 What barriers does the district face in effectively implementing Absenteeism tracking using HRIS?

……

……

E.3 What strategies do you propose to overcome these barriers?

……

……

Thank you VERY MUCH

Annex 4: DESK REVIEW TO ANALYSE TRENDS IN HEALTH INDICATOR OUTCOMES OVER THE PAST 12 MONTHS (SEP 16- SEP 17)

ANTENATAL/POSTNATAL CLINIC	Number												
Category	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
New ANC attendance													
ANC re-attendance 4th visit													
First dose IPT (IPT1)													
Second dose IPT (IPT2)													
Postnatal visits													
Vit A supplementation (postnatal)													
MATERNITY													
Category	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
Admissions													
Deliveries in unit													
Deliveries HIV positive in unit													
Live births in unit													
Still births in unit													

Maternal deaths													
Deliveries by private practitioners													
Deliveries with TBA													
CHILD IMMUNISATION (Under 1 year)													
Category	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
BCG													
Polio 0													
Polio 1													
Polio 2													
Polio 3													
DPT-HepB+Hib 1													
DPT-HepB+Hib 2													
DPT-HepB+Hib 3													
Measles													
DPT-HepB+Hib doses wasted													
FAMILY PLANNING USERS (New Users)													
Method	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17

Oral : Lo-Femenal													
Oral: Microgynon													
Oral: Ovrette													
Oral: Others													
Condoms													
IUDs (Copper T)													
Injectable													
Other methods													
Total family planning users													
FAMILY PLANNING USERS (Revisits)													
Method	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
Oral : Lo-Femenal													
Oral: Microgynon													
Oral: Ovrette													
Oral: Others													
Condoms													
IUDs (Copper T)													
Injectable													

Other methods													
Total family planning users													
1.3.2 Other Infectious/Communicable Diseases													
Category	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
Diarrhea- Acute													
Diarrhea- Persistent													
Ear Nose and Throat (ENT) conditions													
Urinary Tract Infections (UTI)													
Intestinal Worms													
Malaria													
No pneumonia - Cough or cold													
Pneumonia													
Typhoid Fever													